

## **Tornado and Hurricane Design for Nuclear Power Plants: A Brief History**

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In 2015, the US NRC issued Regulatory Issue Summary 2015-06 “Tornado Missile Protection” to remind licensees, as they implement post-Fukushima upgrades for natural phenomena hazards, of the need to conform with deterministic, site-specific licensing basis for tornado-generated missile protection. This paper retraces the evolution of design methods and criteria for tornado and hurricane loads for nuclear power plants structures and equipment over the past 70 years. It also identifies the current challenges as new questions are raised regarding the performance of essential safe shutdown SSCs during a design-basis tornado.